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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYINGI
OFFICE DES EAUX DU NUNAVUT

File No.: **1BR-BYR1320**

August 20 2013

Tamera Van Dyck, Environment Manager,
David Eagles, Project Manager
Defence Construction Canada
Director General Military Engineering
National Defence Headquarters
101 Colonel By Drive
Ottawa, ON K1A 0K2
E-mail: Tamara.VanDyck@dcc-cdc.gc.ca
David.Eagles@dcc-cdc.gc.ca

RE: NWB Renewal Licence No. 1BR-BYR1320

Dear Ms. Van Dyck and Mr. Eagles:

Please find attached Licence No. **1BR-BYR1320** issued to Defence Construction Canada by the Nunavut Water Board pursuant to its authority under Article 13 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*. The terms and conditions of the attached Licence related to Water use and Waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then Water use and Waste disposal must cease, or the Licensee will be in contravention of the Nunavut Land Claims Agreement. However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least three (3) months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit applications for

amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however, a minimum of sixty (60) days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments received by interested persons on issues identified. This information is attached for your consideration.¹

Sincerely,



Thomas Kabloona
Nunavut Water Board
Chair

TK/sj/ri

Enclosure: Licence No. **1BR-BYR1320**
Comments – AANDC, EC, KIA

Cc: Kitikmeot Distribution List
Eva Schulz, AECOM Canada Ltd.

¹ Aboriginal Affairs and Northern Development Canada (AANDC), March 21, 2013; Environment Canada (EC), March 21, 2013; and the Kitikmeot Inuit Association (KIA), March 5, 2013.

DECISION

LICENCE NO.: 1BR-BYR1320

This is the decision of the Nunavut Water Board (NWB) with respect to an application, dated December 12, 2012, for the renewal of a Licence made by:

DEFENCE CONSTRUCTION CANADA

to allow for the implementation of a post construction Landfill Monitoring Program at the former PIN-4 (Byron Bay) Distant Early Warning Line Site, located within the Kitikmeot Region of Nunavut at the following geographical coordinates generally:

Latitude: 68° 45' 30" N

Longitude: 109° 04' 12" W

DECISION

After having been satisfied that the application falls outside an area with an approved land use plan² and is exempt from the requirement for screening as described within Schedule 12-1 by the Nunavut Impact Review Board³ in accordance with Article 12 of the *Nunavut Land Claims Agreement (NLCA)*, the NWB decided that the application could proceed through the regulatory process. In accordance with S.55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)* and Article 13 of the *NLCA*, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *NLCA* and of the *NWNSRTA*, decided to waive the requirement to hold a public hearing and determined that:

Licence Number 1BR-BYR0712 be renewed as 1BR-BYR1320 subject to the terms and conditions contained therein (Motion No.: 2013-B1-033).

SIGNED this 16th day of August 2013 at Gjoa Haven, NU.



Thomas Kabloona
Nunavut Water Board, Chair

² Nunavut Planning Commission (NPC), Land Use Conformity Determination, dated July 16, 2013.

³ Nunavut Impact Review Board (NIRB), Screening Exemption Decision, March 4, 2013.

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I. INTRODUCTION

The PIN-4 (Byron Bay) Distant Early Warning (Line) Site is a former auxiliary radar site located on the south coast of Victoria Island, approximately 160 kilometres east of Cambridge Bay within the Kitikmeot Region of Nunavut. The site was decommissioned in 1993 following replacement of the Distant Early Warning (DEW) Line system by the more modern North Warning System (NWS) and the construction of a NWS facility proximal to the former PIN-4 DEW Line site.

Following decommissioning of PIN-4 DEW Line site, two independent site assessments were conducted in 1989 and 1990, respectively. In addition, a detailed site investigation was conducted in 2004 to delineate the contamination identified in the site assessments and collect additional geophysical, geotechnical, debris and demolition information.

In 2012, the proponent completed activities in support of remediating the site and is currently preparing to implement a post-construction landfill monitoring program. The Landfill Monitoring Program will consist of three (3) phases. The first two phases, which are scheduled to last approximately 25 years, are designed to collect sufficient information to assess and confirm the performance of the Landfills and the Tier II soil disposal facility from a geotechnical and environmental perspective as well as verify equilibrium conditions established. The scope of third phase of monitoring, which has not been developed as yet, is anticipated to be based on 10-year monitoring intervals.

The monitoring results will be reviewed and recommendations will be provided to the Department of National Defence – Nunavut Tunngavik Incorporated (DND-NTI) Steering Committee by an Environmental Working Group (EWG) established to provide technical reports and support to the Steering Committee. Decisions on whether to continue or terminate monitoring will be made after the 25-year period and following an assessment of performance carried out jointly by the DND and NTI.

II. PROCEDURAL HISTORY

The Nunavut Water Board (“NWB and Board) received from AECOM Canada Ltd., on behalf of Defence Construction Canada (DCC) and the Department of National Defence (DND) an application for the renewal and amendment of Licence 1BR-BYR0712. The application included the following documents:

- Cover letter dated December 12, 2012;
- Application for Water Licence Amendment;
- Exploration/Remote Camp Supplementary Questionnaire;
- Summary: PIN-4, Byron Bay Post Construction Monitoring, English and Inuktitut;
- Spill Contingency Plan;

- NIRB Screening Decision (Dated March 29, 2007); and
- Water Use License Amendment and Renewal PIN-4, Byron Bay Landfill Monitoring.

The above-mentioned application has been placed in the NWB's public registry and access provided through the NWB's FTP site using the following link (User name: "*public*" Password: "registry"):

<ftp://nunavutwaterboard.org/1%20PRUC/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-BYR0712%20PIN%204/>.

Following receipt and an internal preliminary technical review of the file, the NWB distributed on February 19, 2013, the application for a thirty (30) -day public review period. Comments were received from Aboriginal Affairs and Northern Development Canada (AANDC), Environment Canada (EC) and the Kitikmeot Inuit Association (KIA). Although the intervening parties provided general comments with respect to aspects of the scope of the monitoring program, they did not express objections in principle to any potential Board decision that would result in issuance of the Licence.

The original licence for the project was issued on April 18, 2003 and expired on December 31, 2005. Licence allowed for the use of Water and the deposit of Waste in support of activities that included but not limited to the delineation of contaminants associated with the site, camp mobilization and operation, and road construction.

A renewed licence was issued on July 23, 2007 which expired on December 31, 2012. The licence allowed for the continued use of Water and the deposit of Waste in support of remediation activities at the PIN-4 (Byron Bay) DEW Line Site Remediation Project. Information provided by the Licensee indicates that the remediation activities have currently been completed and environmental monitoring of the site has been initiated.

GENERAL CONSIDERATIONS

A. Term of the Licence

In accordance with the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* s. 45, the NWB may issue a licence for a term not exceeding twenty-five years. The applicant requested a twenty-five (25) year term for this licence, which the NWB believes may not be appropriate at this particular stage of the project wherein the Licensee has indicated that it plans to assess the stability of the site at specific intervals during the monitoring program. Given the current stage of the monitoring program, the Board has decided that a term of seven (7) years would be appropriate for this Licence during which details on whether any changes required for inclusions to the monitoring program under any subsequent and potentially longer term renewed licence will be determined.

B. Annual Report

Under the reporting section in the Licence, Part B, Item 1, the Licensee is required to submit, on an annual basis, a report that pertains to the activities carried out under the project. This information is kept in the NWB's public registry and made available to interested persons upon request. In addition, the NWB maintains annual reporting information on its FTP site, which can be accessed using the following link (username: "*public*" and password: "*registry*"): http://nunavutWaterboard.org/en/public_registry.

C. Water Use

The Licensee indicated that bottled water will be transported to the site for drinking purposes generally; however, if required, additional freshwater may be extracted for use from a Water supply lake proximal to the seasonal camp facility to support the five to seven personnel associated with the project. The Board has therefore allowed for the use of one (1) cubic metre per day of Water for all purposes under Part C, Item 1 in the licence.

D. Deposit of Waste

Under the expired licence, a two-cell lagoon was constructed to treat sewage and Greywater generated by the project. Now that remediation activities have been completed and the proposed number of onsite personnel for the monitoring program is much less than the number of personnel that were involved in the site remediation activities, the Licensee has stated that Sewage and Greywater generated by the camp facility will be disposed of in sumps, which the Board has allowed under Part D in the Licence.

E. Abandonment and Restoration

The Licensee has indicated that abandonment and restoration activities have generally been completed for the project. However, it proposed to undertake extensive monitoring that would last until approximately 2036. Under the terms and conditions in the Licence, the Licensee is required to remove all equipment and any facilities associated with the monitoring program upon completion of the monitoring program.

F. Monitoring

The remediation activities at PIN-4 (Byron Bay) DEW Line site were completed in 2012. Some general monitoring has been conducted in 2011; however, long-term monitoring of site is scheduled to commence in 2013 and will continue until 2036 under this licence and potential future renewed Licences.

Aboriginal Affairs and Northern Development Canada (AANDC) in its submission indicated that the Licensee should revise the landfill monitoring plan to include criteria that will be used to evaluate the monitoring results as it will assist reviewer in determining whether the landfills are performing as intended. The NWB concurs with AANDC information on criteria for evaluating the monitoring results will be helpful; however, that information could be included as part of the monitoring program results and evaluation process.

Under Table 4 of the Landfill Monitoring Plan, the Licensee has provided information on monitoring locations for the landfills and Tier II Soil Disposal Facility allowed for under the licence. The NWB has included conditions under Part J in the Licence requiring that the monitoring plan be updated as necessary to reflect site conditions and activities.

The NWB has included a requirement for the Licensee to submit a Preliminary Phase II Monitoring Summary Report as part of any application to renew this Licence in 2020. The Report, which should be prepared by a Geotechnical Engineer, shall summarize data collected during Phase I and II monitoring as well as assesses the integrity of the Waste Disposal Facilities. The Report shall also address whether the facilities have performed as expected in addition to expected future performance, whether it is encased in permafrost, and the inclusion of appropriated recommendations. This requirement is detailed under Part J, Item 6 and will help the NWB and interested parties to assess the effectiveness of the closure and monitoring measures undertaken over the term of this Licence.

G. Spill Contingency Planning

The Licensee has included an updated Spill Contingency Plan (SCP) as part of its application, which the Board has approved with the issuance of the licence under Part H, Item 1.

The Board, having appropriately considered the Application, interveners' submissions and the requirements of the undertaking, has accordingly set terms and conditions in this Licence to govern the use of Water and the deposit of Wastes for the PIN-4, Byron Bay Landfill Monitoring Program Project.



NUNAVUT WATER BOARD WATER LICENCE RENEWAL

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

DEFENCE CONSTRUCTION CANADA

(Licensee)

101 COLONEL BY DRIVE OTTAWA, ON K1A 0K2

(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use Water or dispose of Waste for a period subject to restrictions and conditions contained within this Licence renewal:

Licence Number/Type: 1BR-BYR1320 TYPE "B"

Water Management Area: EASTERN VICTORIA ISLAND WATERWATERSHED (37)

Project/Location: PIN-4, BYRON BAY LANDFILL MONITORING PROGRAM
KITIKMEOT REGION, NUNAVUT

Classification: INDUSTRIAL UNDERTAKING

Purpose: DIRECT USE OF WATER & CLOSURE MONITORING

Quantity of Water use not
to Exceed: ONE (1) CUBIC METRE PER DAY

Date of Licence Issuance: AUGUST 20, 2013

Expiry of Licence: AUGUST 19, 2020

This Licence, issued and recorded at Gjoa Haven, Nunavut, includes and is subject to the annexed conditions.

Thomas Kabloona
Nunavut Water Board, Chair

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

- a. This Licence allows for the disposal of Waste for an undertaking classified as Industrial as per Schedule I of the *Regulations* for the post-construction, Pin-4, Byron Bay Landfill Monitoring Program Project, located 160 kilometres east of the Cambridge Bay within the Kitikmeot Region, Nunavut;
- b. This Licence is issued subject to the conditions contained herein with respect to the taking of Water and the depositing of Waste of any type in any Waters or in any place under any conditions where such Waste or any other Waste that results from the deposits of such Waste may enter any Waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of Waste that may be so deposited or under which any such Waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- c. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

“**Act**” means the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*;

“**Addendum**” means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;

“**Airstrip Landfill**” means the landfill, including monitoring stations, located approximately 100 metres east of the hangar, as depicted in Figure PIN-4.1 and described in the document entitled “Water Use Licence Amendment and Renewal PIN-4, Byron Bay Landfill Monitoring” dated December 2012;

“**Amendment**” means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;

“**Applicant**” means the Licensee;

“**Appurtenant Undertaking**” means an undertaking in relation to which a use of Waters or a deposit of Waste is permitted by a licence issued by the Board;

“**Board**” means the Nunavut Water Board established under the *Nunavut Land Claims Agreement*;

“**Effluent**” means treated or untreated liquid Waste material that is discharged into the environment from a structure such as a settling pond or following a treatment process;

“**Engineer**” means a professional engineer registered to practice in Nunavut in accordance with the *Consolidation of Engineers and Geoscientists Act S. Nu 2008, c.2* and the *Engineering and Geoscience Professions Act S.N.W.T. 2006, c.16 Amended by S.N.W.T. 2009, c.12*;

“**Final Discharge Point**” means the point at which the Licensee no longer exerts care and/or control over the quality and/or quantity of the Effluent from a treatment process;

“**Grab Sample**” means a single Water or wastewater sample taken at a time and place representative of the total discharge;

“**Greywater**” means all liquid Wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

“**Hazardous Waste**” means Waste classified as “hazardous” by Nunavut Territorial or Federal Legislation, or as “dangerous goods” under the *Transportation of Dangerous Goods Act* at the time of clean-up;

“**High Water Mark**” means the usual or average level to which a body of Water rises at its highest point and remains for sufficient time so as to change the characteristics of the land (ref. Department of Fisheries and Oceans Canada, Operational Statement: Mineral Exploration Activities);

“**Inspector**” means an Inspector designated by the Minister under Section 85 (1) of the *Act*;

“**Licensee**” means the individual or organization to which Licence 1BR-BYR1320 Type “B” is issued or assigned;

“**Modification**” means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

“Monitoring Program” means a monitoring program established to collect data on surface water and groundwater quality to assess impacts to the freshwater aquatic environment of an appurtenant undertaking;

“Non-Hazardous Waste Landfill” means the landfill, including monitoring stations, located in the existing borrow area that is situated immediately south of the garage pad and west of the module train as depicted in Figure PIN-4.5 of and described in the document entitled “Water Use Licence Amendment and Renewal PIN-4, Byron Bay Landfill Monitoring” dated December 2012;

“North Landfill” means the landfill, including monitoring stations, covering the area of 500 m northeast of the station, along the main station access road near the junction with Chisholm Trail as depicted in Figure PIN-4.1 of and described in the document entitled “Water Use Licence Amendment and Renewal PIN-4, Byron Bay Landfill Monitoring” dated December 2012;

“Northwest Landfill” means the landfill, including monitoring stations, located approximately 300 metres directly north of the station area as depicted in Figure PIN-4.2 of and described in the document entitled “Water Use Licence Amendment and Renewal PIN-4, Byron Bay Landfill Monitoring” dated December 2012;

“NTI Agreement” means the *‘Agreement Between Nunavut Tunngavik Incorporated and Her Majesty the Queen in the Right of Canada, as Represented by the Minister of National Defence for the Clean-up and Restoration of Distant Early Warning Sites within the Nunavut Settlement Area-Environmental Provisions’* including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Nunavut Land Claims Agreement” (NLCA) means the *“Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada,”* including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Post Construction Monitoring Plan” means the plan entitled Water Use Licence Amendment and Renewal PIN-4, Byron Bay Landfill Monitoring” dated December 2012:

“Regulations” means the *Nunavut Waters Regulations SOR 2013/69 18th April, 2013;*

“Sewage” means all toilet Wastes and Greywater;

“Solid Waste Disposal Facility” consists of the area and associated structures designed to contain solid Waste and to permanently isolate the contents of the disposal facility from the environment, as described in the Application for Water Licence filed by the Applicant on February 5, 2007 and illustrated in Drawings H-B264/1-9101/101-122;

“Station Landfill” means the landfill, including monitoring stations, as depicted in Figure PIN-4.1 and described in the document entitled Water Use Licence Amendment and Renewal PIN-4, Byron Bay Landfill Monitoring” dated December 2012;

“Sump” means an excavation in impermeable soil for the purpose of catching or storing Water or Waste;

“Tier I Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier I in Appendix E of the NTI Agreement, including its preamble and schedules, and any amendments to that agreement made pursuant to it (see Table No.1);

“Tier II Soil” means soil containing contaminant concentrations within the types and ranges defined as DCC Tier II in Appendix E of the NTI Agreement including its preamble and schedules, and any amendments to that agreement made pursuant to it (see Table No.1);

“Tier II Soil Disposal Facility” means the facility, including monitoring stations, constructed at the Byron Bay site for the disposal of Tier II soil excavated during cleanup as depicted in Figure PIN-4.7 and described in the document entitled “Water Use Licence Amendment and Renewal PIN-4, Byron Bay Landfill Monitoring” dated December 2012;

“Toilet Wastes” means all human excreta and associated products, but does not include Greywater;

“Type A Soil” means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of lubricating oil and grease (F3 – F4 Fractions);

“Type B Soil” means soil contaminated with hydrocarbons in which the primary petroleum product present in the soil as determined by laboratory analysis consists of fuel oil and/or diesel fuel and /or gasoline (F1 – F2 Fractions);

“USAF Landfill” means the landfill, including monitoring stations, located 300 metres directly south of the station as depicted in Figure PIN-4.1 and described in the document entitled “Water Use Licence Amendment and Renewal PIN-4 Byron Bay Landfill Monitoring” dated December 2012;

“Water” or “Waters” means waters as defined in section 4 of the Act;

“Waste or Wastes” means Waste as defined in Section 85 (1) of the Act; and

“Waste Disposal Facilities” means the facilities designed to retain Wastes including the

Northwest Landfill, North Landfill, Station Landfill, Non-Hazardous Waste Landfill, USAF Landfill, Tier II Soil Disposal Facility, and the Airstrip Landfill.

3. Enforcement

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of Water and deposit or discharge of Waste by the licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

PART B: GENERAL CONDITIONS

1. Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported, which shall contain the following information:
 - a. Tabular summaries for all data and information generated under the Post-Construction Monitoring Program;
 - b. A review and analysis of data collected during the PIN-4, Byron Bay Landfill Monitoring Program and a brief description of any future studies planned by the Licensee;
 - c. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
 - d. The results of any review conducted and any recommendations regarding any changes to the Monitoring Plan and/or remediation requirements;
 - e. A summary of any studies requested by the Board that relate to Waste disposal, Water use or reclamation, and a brief description of any future studies planned;
 - f. A list of unauthorized discharges and summary of follow-up actions taken;
 - g. If applicable, a description of any trenches and sumps excavated, including the following: GPS coordinates, dimensions, depth below active layer, and secondary containment features;
 - h. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
 - i. A brief summary of work done to address concerns or deficiencies listed in the inspection reports and/or compliance reports prepared by an Inspector;
 - j. An executive summary in English and Inuktitut of all plans, reports, or studies conducted under this Licence; and
 - k. Any other details on Water use or Waste disposal requested by the Board by

November 1st of the year being reported.

2. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
3. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:
 - (a) Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0
Telephone: (867) 360-6338
Fax: (867) 360-6369
Email: licensing@nunavutwaterboard.org
 - (b) Inspector Contact:
Manager of Field Operations, AANDC
Nunavut District, Nunavut Region
P.O. Box 100
Iqaluit, NU X0A 0H0
Telephone: (867) 975-4295
Fax: (867) 979-6445
4. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut and Inuinnaqtun.
5. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing.
6. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
7. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.
8. The Licensee shall review the Plans referred to in this Licence, as required by changes in operation and/or technology, and modify the Plan accordingly. Revisions to the Plans shall be submitted in the form of an Addendum to be included with the Annual Report.

9. This Licence is assignable as provided for in Section 44 of the *Act*.

PART C: CONDITIONS APPLYING TO WATER USE

1. The Licensee is authorized to use Water for domestic purposes and the sampling required under the PIN-4, Byron Bay Landfill Monitoring Program. Water for domestic use shall come from the Water Supply Lake described in the Application dated December 12, 2012. Total Water use for the purposes of this Licence shall not exceed one (1) cubic metre per day.
2. Streams cannot be used as a Water source unless authorized and approved by the Board in writing.
3. If the Licensee requires Water in sufficient volume that the source Water body may be drawn down the Licensee shall, at least thirty (30) days prior to commencement of use of Water, submit to the Board for approval in writing, the following: volume required, hydrological overview of the Water body, details of impacts, and proposed mitigation measures.
4. The Licensee shall equip all Water intake hoses with a screen of an appropriate mesh size to ensure that fish are not entrained and shall withdraw Water at a rate such that fish do not become impinged on the screen.
5. The Licensee shall not remove any material from below the ordinary High Water Mark of any Water body.
6. The Licensee shall not do anything that will cause erosion to the banks of any body of Water and shall provide necessary controls to prevent such erosion.
7. The Licensee shall implement sediment and erosion control measures to prevent the deposition of dust and/or sediment into Water, arising from contractor activities or on-site vehicular travel.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee is not allowed to discharge effluent from the facilities approved under the Licence unless written authorization is obtained from the Board.
2. The Licensee shall provide to the Board documented authorization from all communities in Nunavut receiving Wastes from the site prior to any backhauling and disposal of Wastes to those communities.
3. The Licensee shall backhaul and dispose of all Waste generated through the course of the

operation at a licensed Waste disposal site.

4. The Licensee shall maintain records of all Waste backhauled and records of confirmation of proper disposal of backhauled Waste. These records shall be made available to an Inspector upon request.
5. The Licensee shall contain all Greywater in a sump located at a distance of at least thirty one (31) metres above the ordinary High Water Mark of any Water body, at a site where direct flow into a Water body is not possible and no additional impacts are created, unless otherwise approved by the Board in writing
6. The Licensee shall contain all toilet Wastes in latrine pits or use incineration, chemical, portable or composting toilets. Latrine pits shall be located at a distance of at least thirty-one (31) metres above the ordinary High Water Mark of any Water body, treated with lime and covered with native material to achieve the pre-existing natural contours of the land prior to abandonment.

PART E: CONDITIONS APPLYING TO THE UNDERTAKING

1. The Licensee shall conduct all activities in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
2. The Licensee shall minimize disturbance to terrain, permafrost and drainage during movement of contractor's equipment and personnel around the site during post-closure monitoring activities.
3. All sites affected by sampling activities shall be stabilized, landscaped as necessary, and suitable erosion control measures implemented to minimize sediment deposition into Watercourses located on or adjacent to the site.
4. Licensee shall not deposit any Waste in any body of Water, or on the banks thereof.

PART F: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

1. The Licensee shall not erect camps or store material on the surface of frozen streams or lakes including the immediate banks except what is for immediate use. Camps shall be located such as to minimize impacts on surface drainage.
2. The Licensee shall provide to the Board and an Inspector with the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) within thirty (30) days following any relocation of the camp facility allowed under this Licence
3. The Licensee shall conduct all activities in such a way as to minimize impacts on surface

drainage and the Licensee shall immediately undertake corrective measures in the event of any impacts on surface drainage.

4. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any Water body is prohibited. These materials shall be disposed at a distance of at least thirty-one (31) metres from the ordinary High Water Mark in such a fashion that they do not enter the Water.
5. The Licensee shall not mobilize heavy equipment or vehicles unless the ground surface is capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles shall be suspended if rutting occurs

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:
 - a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
 - b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
 - c. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
 - d. the Board has not rejected the proposed Modifications.
2. Modification for which all of the conditions referred to in Part G, Item 1 have not been met can be carried out only with written approval from the Board.
3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

1. The Board has approved with the issuance of this Licence the plan entitled "Spill Contingency Plan," received by the NWB with the application on December 13, 2012.
2. The Licensee shall submitted together with the 2013 annual report an addendum to the plan referenced in Part H, Item 1 to address minor deficiencies in the original plan, such as the inclusion of:
 - a. a detailed site or topographic map depicting site infrastructure, nearby water bodies,

- fuel caches and other relevant information;
 - b. details on secondary containment measures and structures that will be implemented to contain fuel and other substances stored onsite;
 - c. the contact information for AANDC's Manager of Field Operations;
 - d. a copy of the NT-NU Spill Report Form; and
 - e. Spill response measures for responding to spills in water and on land, snow or ice.
3. Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other Waste and contain potential spills.
4. All sumps and fuel caches shall be located a minimum of thirty one (31) metres above the ordinary high Water mark of any adjacent Water body and inspected on a regular basis. The Licensee is encouraged to use some form of secondary containment on fuel and chemical storage associated with this undertaking.
5. If during the term of this Licence, an unauthorized discharge of Waste occurs, or if such a discharge is foreseeable, the Licensee shall:
- a. Employ the approved Spill Contingency Plan;
 - b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the AANDC Manager of Field Operations at (867) 975-4295; and
 - c. Submit to the AANDC Water Resources Inspector on each occurrence, a detailed report including the GPS location, no later than thirty (30) days after initially reporting the event.

PART I: CONDITIONS APPLYING TO ABANDONMENT, RESTORATION AND CLOSURE

- 1. The Licensee shall backfill and restore all sumps to the pre-existing natural contours of the land.
- 2. The Licensee shall remove from the site, all infrastructure and site materials, including all fuel caches, drums, barrels, buildings and contents, docks, Water pumps and lines, material and equipment prior to the expiry of this Licence.
- 3. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.
- 4. The Licensee shall remove any culverts and restore the drainage to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.

5. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
6. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to meet objectives as outlined in the Government of Nunavut's Environmental Guideline for Site Remediation, 2010. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon consultation and approval by the Government of Nunavut, Department of Environment and an Inspector.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

1. The NWB has approved the plan entitled "Water Use License Amendment and Renewal, PIN-4, Byron Bay Landfill Monitoring," dated December 2012.
2. The Licensee shall monitor the relevant facilities under this licence in accordance with the information and details provided in the Plan referred to in Part J, Item 1.
3. The Licensee shall submit as an addendum together with the annual report required for the period immediately following any changes or updates to the Plan referred to in Part J, Item 1.
4. The Licensee shall conduct all sampling, sample preservation and analyses in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board.
5. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
6. The Licensee shall include in the Annual Report, required under Part B, Item 1, all monitoring results and information required by this Part.
7. The Licensee shall submit a Preliminary Phase II Monitoring Summary Report as part of an application to renew this Licence in 2020. The Report shall be prepared by a Geotechnical Engineer and summarize data collected during Phase I and II monitoring, as well as assess the integrity of the Waste Disposal Facilities. The Report shall also address whether the facilities have performed as expected and whether they are encased in permafrost. In addition, the report shall also include an assessment of how the facilities are expected to perform in the long term and recommendations where necessary.

Table No.1
(From INAC Abandoned Military Site Remediation Protocol)
DEW Line Clean-up Criteria (DCC)^a

Substance	DCC Tier I^{bc}	DCC Tier II^d
Arsenic	-	30
Cadmium	-	5.0
Chromium	-	250
Cobalt	-	50
Copper		100
Lead	200	500
Mercury	-	2.0
Nickel	-	100
Zinc	-	500
PCB's	1.0	5.0

a. These criteria were adopted specifically for the cleanup of Arctic DEW Line Sites from the 1991 versions of the Quebec Soil Contamination Indicators and the Canadian Council of Ministers of the Environment Interim Canadian Environmental Criteria for Contaminated Sites.

b. Soil criteria are given in parts per million, ppm.

c. Soils containing lead and/or PCBs at concentrations in excess of DCC I, but less than DCC II, may be landfilled,

d. Soils containing one or more substrates in excess of DCC II must be containerized - i.e. removed in a manner which precludes contact with the Arctic ecosystem.